

REMARKS

Claims 1-28 have been examined. New claims 29-31 have been added, hence claims 1-31 are all the claims pending in the application.

I. Claim Rejections - 35 U.S.C. § 102

Claims 1-28 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Rumreich et al. (US 5,929,927). Applicants traverse the rejection based on the following comments.

A. Claims 1, 2, 11, 13, and 18-21

Claim 1 recites:

A scroll display control device including a computer readable medium which stores a program for causing a computer to execute scroll-displaying, in synchronism with reproduction of series information correlated to text information, the corresponding text information on a text display screen, said scroll display control device comprising:

means which changes a scroll speed in said text display screen on the basis of a text quantity of said corresponding text information with respect to reproduction time of said series information.

wherein the display area of said text is fixed at a predetermined reference position of the text display screen.
(emphasis added).

In certain embodiments, series information may be, for example, a video clip (e.g., PW in FIG. 1, below) or a sound clip. In these embodiments scroll speed of the text (11) associated with a video or sound clip (PW) is changed based on the text quantity of the corresponding text and the reproduction time of the video clip or the sound clip. An example of this embodiment is illustrated in FIG. 1, which is reproduced below.

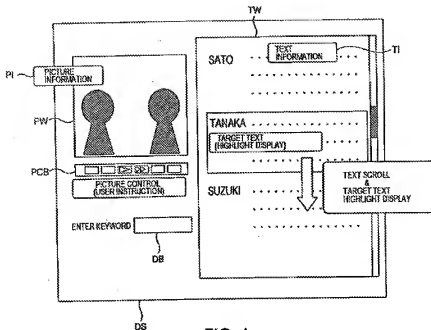


FIG. 1

The Examiner asserts that Rumreich discloses each and every feature of claim 1. In particular, on page 3 of the Office Action, the Examiner asserts that Rumreich discloses changing a scroll speed in a text display screen according to text volume with respect to reproduction time of video/audio information (see col. 3, lines 37-48; and col. 5, lines 1-10). Accordingly, the Examiner asserts that Rumreich discloses a “means which changes a scroll speed in said text display screen on the basis of a text quantity of said corresponding text information with respect to reproduction time of said series information.” Applicants respectfully disagree. In particular, Rumreich does not disclose any correlation of the scroll speed with the reproduction time of the series information (e.g., video or sound information).

For example, Rumreich discloses an address generator which modulates the scroll rate of the display in response to an amount of text information in the buffer (e.g., the scroll rate increases as the fullness of the buffer increases) and, in particular, in response to an amount of

previously undisplayed information in the buffer (col. 3, lines 38-42; col. 5, lines 1-10). For example, if the buffer is very full, no pause is generated and the displayed text continuously scrolls without pause (col. 3, lines 55-57). This, in effect, increases the scroll rate. Thus, the modulation of the scroll rate is based solely on the amount of text data currently present in the buffer, or in other words, is based on the rate at which text data is received in the buffer from the source (col. 6, lines 38-51). Rumreich does not describe taking into account the reproduction time of the series information, and more particularly, that the scroll rate is based on a text quantity of said corresponding text information with respect to reproduction time of said series information. The amount of text data in the buffer of Rumreich does not have any correlation to an actual reproduction time. Instead, Rumreich merely calculates how much text is in the buffer and adjusts the scroll rate solely based on this amount.

In view of the above, Applicants submit that Rumreich fails to disclose each and every feature of claim 1, and thus, claim 1 is patentable for at least this reason.

Claim 2 recites:

A scroll display control device including a computer readable medium which stores a program for causing a computer to execute scroll-displaying, in synchronism with reproduction of series information correlated to text information, the corresponding text information on a text display screen, said scroll display control device comprising:

scroll speed calculation means which calculates a scroll speed on the basis of at least a time length of a series information section presently under reproduction and a quantity of the text belonging to a text section corresponding to the series information section during reproduction; and

control means which scroll-displays the text belonging to the text section at a predetermined reference position of said text display screen according to said scroll speed.

Applicants submit that claim 2 is patentable for reasons similar to those presented above in conjunction with claim 1. In particular, Rumreich merely calculates how much text is in the

buffer and adjusts the scroll rate solely based on this amount. Rumreich is completely silent on calculating a scroll speed on the basis of a **time length** of a series information section presently under reproduction, as recited in claim 2. Applicants submit that claim 2 is patentable for at least this reason.

Claim 13 recites that “when a text section corresponding to a picture reproduction position is changed, said scroll speed is derived on the basis of a **time length** of a picture section corresponding to the picture reproduction position and a text quantity of the text section corresponding to the picture reproduction position.” Applicants submit that claim 13 is patentable for reasons similar to those presented above for claim 2.

In addition, claim 18 and 19 include analogous, though not necessarily coextensive features recited in claim 2, and therefore, claims 18 and 19 are patentable for reasons similar to those discussed for claim 2.

Claim 20 recites that “a reproduction time is a **time length** of said series information.” Thus, Applicants submit that claim 20 is patentable for reasons similar to those discussed for claim 2.

Claim 21 recites that “said scroll speed is increased if the text quantity increases with respect to said reproduction time and said scroll speed is decreased if the text quantity decreases with respect to said reproduction time.” Again, Rumreich fails to disclose any correlation between adjusting a scroll speed and the reproduction time. Thus, claim 21 is patentable for at least this reason.

Claim 11 recites:

A scroll display control method comprising:
displaying and reading text information corresponding to a picture in synchronism with reproduction of the picture in a scrolling manner, and performing scroll display of said text information in synchronism with the reproduction of the picture by changing a scroll speed adaptable to the picture under reproduction,

wherein the display area of said text information is fixed at a predetermined reference position of a text display screen.

Applicants submit that claim 11 is patentable for reasons similar to those presented above in conjunction with claim 1. In particular, Rumreich merely calculates how much text is in the buffer and adjusts the scroll rate solely based on this amount. Rumreich is completely silent on changing a scroll speed adaptable to the picture under reproduction, as recite in claim 11.

Applicants submit that claim 11 is patentable for at least this reason.

B. Claims 3, 4 and 14

Claim 3 recites:

The scroll display control device according to Claim 2, further comprising a text display setting information memory which variably stores display setting information of the text displayed on said text display screen ;

wherein said scroll speed calculation means calculates said scroll speed of the text on the basis of the length of the series information section during reproduction, the quantity of the text belonging to the text section corresponding to the series information section during reproduction, and the display setting information.

On page 4 of the Office Action, the Examiner asserts that Rumreich discloses “calculating a scroll speed on the basis of a time period of video/audio information and an amount of text corresponding to the video/audio information during reproduction.” However, at no point does Rumreich disclose modulating a scroll speed on the basis of a time period of

video/audio information, much less disclose “the length of the series information section during reproduction,” as recited in claim 3.

Furthermore, Rumreich does not disclose variably storing display setting information of the text displayed. A variable scroll rate of text is not equivalent to the claimed variable display setting information. This is further exemplified by the fact that claim 3 recites that the “scroll speed calculation means calculates said scroll speed of the text on the basis of...the display setting information.” At no point does Rumreich disclose calculating a scroll rate based on display setting information. Instead, Rumreich merely calculates how much text is in the buffer and adjusts the scroll rate solely based on this amount.

Applicants submit that claim 3 is patentable for at least these reasons.

Claim 4 recites that “said text display setting information memory variably stores a plurality of scroll methods and said control means scroll-displays the text according to the selected scroll method.” The Examiner appears to assert that the claimed scroll methods correspond to various scroll rates of Rumreich. However, as noted above in conjunction with claim 3, the text display setting information is used as a basis for calculating the scroll speed, but is not the actual scroll speed itself (or one of variable scroll speeds). Thus, Rumreich fails to disclose this feature.

Claim 14 recites:

a text display setting of the text to be synchronously displayed with reproduction of the picture, and
wherein, when the text display setting of the text is changed, said scroll speed is derived on the basis of the changed text display setting of the text.

Again, Rumreich fails to disclose deriving a scroll speed based on a changed text display setting. Therefore, claim 14 is patentable for at least this reason.

C. Claims 5 and 6

Claim 5 recites that “said text display setting information memory variably stores the predetermined reference position of said text display screen.” Although Rumreich discloses that two lines of text are displayed at a home position, Rumreich does not appear to disclose that the “home position” is variably stored. That is, Rumreich fails to disclose variably storing the predetermined reference position of said text display screen, as recited in claim 5.

Claim 6 recites that “a user instruction input means for dynamically changing the text display setting information”, and the Examiner cites to column 7, lines 25-54, of Rumreich for disclosing this feature. However, this portion of Rumreich relates to enabling a counter using a caption insert signal and does not relate to a user instruction input means which dynamically changes the text display setting information (col. 7, lines 15-16). For example, there is no mention of a user instruction input. Thus, Applicants submit that claim 6 is patentable for at least this reason.

D. Claim 7

Claim 7 recites that “text of a preceding text section which precedes the text section and text of a succeeding text section which succeeds the text section are respectively displayed in two adjacent areas across the text section displayed at the reference position.” The Examiner asserts that Rumreich discloses having four rows at one time reference among displayed 15 rows of text that include succeeding text and preceding text. However, Rumreich merely discloses that a closed caption character format comprises of 15 rows, with up to only four rows of characters being displayed at a time (col. 4, lines 44-48). Thus, eleven of those row are not displayed until they are scrolled into a home position (see col. 4, lines 65-66). That is, Rumreich

may disclose displaying a text section of four rows at a home position, but the text in the rows preceding and succeeding the four rows of displayed text are not displayed in two adjacent areas across the text section displayed. The other eleven rows merely reside in the buffer, in grid format, until scrolled into the home position of the “text section.” Thus, Rumreich fails to disclose the features of claim 7.

E. Claim 10

A scroll display control method comprising:
displaying text information corresponding to sound in a scroll manner,
such that the text information is displayed in synchronism with reproduction of the sound by changing a scroll speed adaptable to the sound during reproduction,
wherein the display area of said text information is fixed at a predetermined reference position of a text display screen.

Although Rumreich discloses increasing the scroll rate as the fullness of the buffer increases or increasing the scroll rate as a rate of speech increases, Rumreich does not disclose that the scroll speed is adaptable to the **sound** being reproduced. Simply because a quantity of text increases in the buffer does not necessarily mean that the text scrolled therefrom is in sync with the sound reproduced. Rumreich fails to disclose or fairly suggest this feature, and therefore, claim 10 is patentable for at least this reason.

F. Claim 12

Claim 12 recites that “the text information to be displayed is text information belonging to a text section corresponding to the picture during reproduction and to preceding and succeeding text sections thereof.” However, Rumreich does not disclose displaying three text sections: a preceding text section, a “current” text section, and a succeeding text section. Instead, Rumreich merely discloses displaying two lines of text in a home position, while the

remaining lines reside in the buffer (i.e., not displayed). Thus, Applicants submit that claim 12 is patentable for at least this reason.

G. Claims 15-17

Claim 15 recites that “reproduction of the picture is one of still picture reproduction, n-time reproduction, n-time rewind reproduction, and slow reproduction, where n is an integer equal to or greater than 1.” However, nothing in Figures 1 and 2 or column 6, lines 40-60, of Rumreich discloses the reproduction of the picture being one of the above types of reproduction. In particular, column 6, lines 40-60, of Rumreich merely relates to the modulation of the scroll rate of text, not to the reproduction of a picture which text information corresponds to (see claim 11 of present application). Thus, Applicants submit that claim 15 is patentable for at least this reason.

Claim 16, as amended, recites that “a number of characters displayed in the text section is increased by automatically changing the text display setting when reproduction of the picture is either fast-forward reproduction of at least two-time fast-forward reproduction or rewind reproduction.” Rumreich only discloses that two lines of text are displayed in a text section (col. 4, line 65-66), and does not disclose increasing a number of characters displayed in the text section according to picture reproduction speed recited in claim 16. Thus, Applicants submit that claim 16 is patentable for at least these reasons.

Claim 17, as amended, recites that “a number of characters displayed in a text section succeeding the text section corresponding to the picture under reproduction is increased by automatically changing the text display setting when reproduction of the picture is slow reproduction.” Applicants submit that claim 17 is patentable for reasons similar to those

presented above in conjunction with claim 16. In addition, Rumreich does not disclose displaying a succeeding text section or a slow picture reproduction.

H. Claims 22-24

Claims 22-24 recite that “the changing of the text display setting includes at least one of changing a display reference position of a target text, changing of a text display area size indicative of a height and a width of a text display area, and changing of a display text character size indicative of a height and a width of a text character.” The Examiner asserts that column 6, lines 40-60, of Rumreich discloses the above features. However, column 6, lines 40-60, of Rumreich merely discloses that two lines of characters are displayed and a scroll rate is modulated according to the fullness of a buffer, and has nothing to do with changing the setting of the text display (i.e., text display setting). For example, Rumreich does not disclose changing a reference position of a target text, changing of a text display area size indicative of a height and a width of a text display area, or changing of a display text character size indicative of a height and a width of a text character. Looking back on claim 14 of the present application, for example, Rumreich fails to disclose that a scroll speed is derived on the basis on the changed text display setting.

I. Remaining claims

Applicants submit that the remaining claims are patentable at least by virtue of their respective dependencies.

II. New claims

By this Amendment, Applicants have added new claims 29-31 to further define the claimed invention. Applicants respectfully submit claims 29-31 recite additional features which are not taught or suggested by the prior art of record.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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